

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY  
FY 17 END-OF-YEAR REVIEW  
OF THE CLEAN WATER ACT, SECTION 106 PROGRAM  
March 7, 2018**

## **I. INTRODUCTION**

The FY 17 End-of-Year review discussions on the Clean Water Act (CWA), Section 106 Water Pollution Control program were held with the Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency (EPA), Region 6, staff via conference call. The meeting included discussions with staff from the Surface Water Quality and the Ground Water Programs regarding the FY 17 CWA, Section 106 work plan. The work plan identifies commitments that are partially funded by the Section 106 state allotment and the state Maintenance of Effort (MOE).

The End-of-Year review addressed efforts and activities performed by ADEQ to meet the program commitments and accomplishments based on the FY 17 work plan. This report summarizes the ADEQ/EPA review discussions and program findings for the FY17 reporting period. The FY 17 reporting period started October 1, 2016, and continued through September 30, 2017. A list of meeting attendees is included in Attachment 1.

## **II. FINANCIAL AND ADMINISTRATIVE PROGRAM MANAGEMENT**

In February 2016, EPA forwarded the Regional priorities for FY 17 funding for the base CWA, Section 106, the Section 106 Monitoring Initiative, and Section 604(b) programs to formulate commitments in the Section 106 and 604(b) program work plans. ADEQ submitted the application and work plan for the FY 17 CWA, Section 106 funds within the required timeframe.

ADEQ's initial grant award in FY 17 was on September 14, 2016 for \$510,256 in federal funds and this grant was increased by \$395,785 on December 13, 2016 with a subsequent amendment on May 22, 2017 for \$651,709 and July 21, 2017 for \$502,250 for a total funding of \$2,060,000. The funds were awarded to manage the Section 106, Surface Water and Ground Water Programs of which \$1,855,00 was allocated in the work plan for surface water commitments and \$205,000 for ground water activities (\$159,000 to ADEQ for ground water and ADEQ provided \$46,000 to Arkansas Department of Health (ADH) for the Wellhead Protection Program) based on the approved grant work plan. According to the work plan, ADEQ allocated just under 10% (.0995) of the available Section 106 allotment for ground water activities. The Region continues to recommend that at least 15% of the Section 106 funds be made available for ground water activities. ADEQ provided the required MOE of \$529,880 in State funds.

ADEQ submitted the required mid and end-of-year progress reports for the FY 17 reporting period for the Surface and Ground Water Programs. In order to better access the progress made on the grant(s), the Region continues to request that ADEQ progress reports, at a minimum, included the following information:

- Ensure that the reports address each task/activity included in the work plan. It would be helpful if progress reports mirrored the work plan commitments-- crafted based on the presentation of the commitments in the work plan and provide an update under each of the commitments.
- Provide a discussion of all accomplishments and the status of the tasks/activities as measured against the work plan commitments.
- Summarize work performed on each task/activity for the reporting period related to completion of the activity. If a task is completed during the reporting period, please add the completion date.
- Describe existing and potential problem areas for all activities and ways the issues were resolved or proposed resolutions.
- If a task or activity is behind schedule or has not been met, please provide the reason(s) why it is behind schedule or has not been met and an updated timeframe for completion.
- If no work was completed during the reporting period on a task, please indicate that and state the reason(s).
- It would be helpful to include the mid and end-of-year activities in one report. (i.e. add the end-of-year accomplishments to the mid-year report and label as such, Mid-Year and follow under that task summary with the End-of-Year update).

This information will provide a good indication of the progress made and the status of the commitments in the work plans or grants.

### **III. SURFACE WATER QUALITY PROGRAM**

#### **A. Permits and Enforcement**

The ADEQ Permits Section conducted a Lean process on the permitting process which is expected to show some improvements in the permitting process. Three new engineering positions were filled in Permits; however, it will take some time for training. Enforcement has five vacant positions which is approximately half of the staff. ADEQ was commended on the Net DMR efforts especially considering being short staffed. During the reporting period, ADEQ issued the National Pollutant Discharge Elimination System(NPDES) permits and conducted enforcement actions as follows: (Tables 1 and 2)

1. The following chart includes ADEQ's commitments and accomplishments by the Permits Program:

**Table 1 – NPDES Program Activities**

<b>Activities</b>	<b>Commitments</b>	<b>Accomplishments</b>
<b><i>Permits Issued:</i></b>		
Major Industrial	7	7
Major Municipal	15	15
Minor Municipal	48	47
Non-Minor Municipal	71	83
Minor Federal	0	0
General Permits	As needed	516
Construction Permits	As needed	14
<b><i>Audits:</i></b>		
Pretreatment Audits	As needed	0
<b><i>Water Quality Modeling:</i></b>		
WQ Management Plan Update	As needed	61
Desk Top Modeling Conducted/ Reviewed	As needed	126
Field Verified Conducted/Reviewed	As needed	0

2. The following chart includes ADEQ's commitments and accomplishments by the Enforcement Program:

**Table 2 – Enforcement Program Activities**

<b>Enforcement Actions</b>	<b>Accomplishments</b>
<b><i>NPDES</i></b>	
Informal (Warning Letters)	296
Formal Default Administration Orders (DAO)	1
Formal Consent Administrative Orders (CAO)	36
Formal Notice of Violations (NOV)	5
<b><i>State Permits</i></b>	
Informal	308
Formal DAO	0
Formal CAO	5
Formal NOV	1

## B. Water Quality Management Planning (WQMP)

ADEQ reviewed the Total Maximum Daily Loads (TMDLs) in Table 3 along with the following submitted by other agencies:

- Bayou Bartholomew TMDL – On November 2, 2016, ADEQ received revisions from the contractor. Work has stopped on that TMDL because all but one stream reach was removed from the 303d list and sampling has begun on this stream reach.
- Stone Dam Creek, Conway TMDL – The TMDL is being revised due to the change in the discharge location from Stone Dam Creek to the Arkansas River.
- El Dorado Chemical Company - TMDLs associated with the company's receiving streams are being revised.
- Illinois River TMDLs – The State is taking part in a work group to develop TMDLs for listed streams.
- SWEPCO – TMDLs associated with the receiving stream are being revised.

**Table 3 - Water Quality Management Planning Activities**

<b>Program Activity</b>	<b>Accomplishments</b>
TMDL Documents Reviewed	2
UAA Documents Reviewed	6
WER Documents Reviewed	1
Third Party Regulation Revision Request Reviewed	3
Toxicity Samples Collected	NA
Sites Visited with Toxicity Samples	NA
<b><i>401-404 Program</i></b>	
404's Certified	40
404's Waived	2
Nationwide Permits	130

## C. Water Quality Standards

ADEQ submitted the draft Minerals Strategy to the Region for review. The Region anticipates continued discussions with the State on minerals criteria development which will be important as this involves most third party rulemakings and development of the State's plan for developing statewide criteria. According to ADEQ, the third party rule making is on hold due to EPA comments which will require further discussion. Coffee Creek/Mossy Lake use and criteria adoption is another important challenge that should be addressed in the State's 2017 Regulation 2 revision.

UAA's and other proposed water quality standard changes reviewed: UAAs and other proposed water quality standard changes reviewed:

- Waldron – Minerals on Poteau River – on hold
- Fayetteville - Minerals on White River – approved by Arkansas Pollution Control and Ecology Commission
- TURK Plant - Minerals on Red River – approved by Arkansas Pollution Control and Ecology Commission
- TURK Plant - Temperature and TDS on Little River - EPA approved
- Harrison/Yellville - Minerals on Crooked Creek – submitted to EPA
- GP-Crossett - Use investigation on Coffee Creek and Mossy Lake, etc.
- Huntsville – Minerals on Town Branch, Holman Creek, War Eagle Creek – on hold
- Vulcan Construction Materials-Minerals on tributary to Spring River
- El Dorado Chemical Company – Aquatic Life Use

Water Effects Ratios (WER) reviewed/discussed:

- Shumaker - Copper

Third party rulemakings were completed for the following:

- Fayetteville: Regulation No. 2 amends the mineral standards for chlorides, sulfates, and total dissolved solids (TDS) for a portion of the White River from Noland WWTP to 0.4 miles downstream (WR-02) and a portion of the White River from WR-02 to WHI0052
- SWEPCO: Regulation No. 2 amends the mineral standards for total dissolved solids (TDS) for a portion of the Red River from the mouth of the Little River to the Arkansas/Louisiana state line.
- Haliburton: Regulation No. 2, through the Environmental Improvement Project (EIP) process, temporarily revise the standards for sulfates and total dissolved solids (TDS) for: Chamberlain Creek from headwaters to confluence with Cove Creek, Cove Creek from the confluence with Chamberlain Creek to the Ouachita River, Lucinda Creek from the confluence of Rusher Creek to the confluence with Cove Creek, Rusher Creek from the confluence of the East and West Forks to confluence with Lucinda Creek, Reyburn Creek from headwaters to confluence of Francois Creek, and Scull Creek from a point approximately 350 feet upstream of Clearwater Lake to Clearwater Lake (including Clearwater Lake) and from Clearwater Lake dam to confluence Reyburn Creek.

#### **D. Planning, Assessment, and Data Management**

ADEQ reviewed the Assessment Methodology and has made preliminary revisions. The State anticipates that the revised document will be completed and submitted to Region 6 by mid- 2018. The State has included a three phase approach for public input and involvement in developing the 2018 Assessment Methodology. The three phases include: 1) Phase I: gathering public input; 2) Phase II: a series of stakeholder work group meetings to consider input gathered during Phase I; and 3) Phase III: public notice of the revised Assessment Methodology.

The current status of the Assessment Methodology based on this approach is: Phase 1 has been completed. Under Phase 2, several workgroup meetings have been conducted and in Phase 3, a draft assessment methodology has been developed and public noticed in October 2017.

The ADEQ Monitoring and Compliance Quality Assurance Project Plan (QAPP) submitted to the Region on December 23, 2015 was reviewed, commented on and subsequently, the Region approved the QAPP on March 2, 2016 with an expiration date of March 2, 2018. On January 22, 2018, ADEQ submitted a request to the Region to recertify the QAPP and stated that there were no changes to the existing QAPP. The Region approved the request to recertify the QAPP on March 2, 2018 with an expiration date of March 2, 2019. However, EPA requested that copies of any revised or recently developed Standard Operating Procedures(SOPs) be submitted to the Region for review and consistency with the current QAPP. ADEQ stated that SOPs/revisions should be submitted to the Region in mid-2018.

#### **E. Compliance Monitoring**

ADEQ accomplishments in regards to the Compliance Evaluation and Compliance Sampling Inspections along with other compliance actions are noted below in Table 4. ADEQ has three vacant positions in this area.

**Table 4 - Compliance Inspections**

<b>Program Activity</b>	<b>Accomplishment</b>	<b>Frequency</b>
<b>Compliance Evaluation Inspection</b>		
Major Municipal	38	Once/ 2 years
Major Non-Municipal	17	Once/2 years
PCI/ Audits	7	Two/5 years
Minor Municipal	57	Once/5 years
Minor Non-Municipal	61	Once/5 years
<b>Compliance Sampling Inspection</b>		
Major Municipal	4	4/year
Major Non-Municipal	4	4/year
Minor Municipal	9	4/year
Minor Non-Municipal	4	8/year
<b>Other</b>		
Construction Storm Water	227	
Industrial Storm Water	232	
Complaints Investigated	454	
Fish Kills Investigated	6	
Emergency Response Actions	13	
Ambient Water Samples Collected	> 2000	
Sanitary Sewer Overflow Inspections	91	
Reconnaissance Inspections	43	
Compliance Assistance	0	
Other	48	

#### **IV. Clean Water Act, Section 106 Monitoring Initiative (MI) Grants**

- A. FY 14 Data Collection for the Development of Nutrient Criteria for Extraordinary Resource Water bodies (ERW) in the Ouachita Mountains Ecoregion – Grant No. I00F87601** - The state was awarded \$175,028 on June 19, 2014, for the monitoring strategy enhancement. The initial budget period for the grant was October 1, 2014, through December 31, 2017. As of the end-of-year discussions, all funds had been drawn from the grant and the final deliverable was submitted for review and comment. When all EPA comments on this report have been resolved, this grant will be closed out.
- B. FY 15 Establishment of Biological Monitoring Network (BMN) Data Collection for Selected Ouachita Mountain Ecoregion Sites – Grant No. I00F03201** - ADEQ was awarded \$158,951 on September 22, 2015, for the monitoring strategy enhancement. The initial budget period for the grant was October 1, 2015, through September 30, 2017; however, a budget period extension was requested and approved by EPA through September 30, 2018. As of the end-of-year discussions, \$97,996.53 had been drawn from the grant with the remaining balance in the grant of \$60,954.47. The most recent required semi-annual progress report was submitted to the Region in February 2018.
- C. FY 16 Data Collection for the Development of Nutrient Criteria for ERWs in the Ouachita Mountains Ecoregion and Sample Collection at Select Lakes as part of the National Lakes Assessment Survey – Grant No. I01F18701:** The State was awarded \$159,000 on September 22, 2016, for the monitoring strategy enhancement. The initial budget/project period for the grant was October 1, 2016, through September 30, 2018. In June 2017, an additional \$59,000 was awarded to ADEQ for to participate in the National Lakes Assessment Survey for collection of water samples from select Arkansas lakes. As of the end-of-year discussions, \$153,811 had been drawn from the grant with the remaining balance in the grant of \$64,189.
- D. FY 17 Data Collection of Selected Lakes at Risk for Harmful Algal Blooms – Grant No. I01F35801** – In FY 17, ADEQ was requested to submit a two-year application for FY 17 and 18 funds. In September 2017, ADEQ was awarded \$156,180 for the monitoring strategy enhancement. The budget/project period is October 1, 2017 to December 31, 2020. To date, a minimal amount of work has been completed on this project and \$9,065 has been drawn from the grant to date.

#### **V. GROUND WATER PROGRAM**

##### **A. Administration**

In the FY 17 work plan, \$205,000 in funding was designated for ground water activities which is just slightly less than 10% of the State's CWA, Section 106 allocation. ADEQ passes \$46,000 of these funds to the Arkansas Department of Health. The Region continues to encourage states to allocate at least 15% for ground water activities.

The Ground Water program funds one position, the section manager position under the CWA, Section 106 grant for management and completion of the ground water activities. The Ground Water program has staffing needs and would like to hire an ecologist to cross train and to assist the ground water manager.

The Memorandum of Agreement was developed between ADEQ and the Arkansas Department of Health (ADH) for groundwater protection assistance activities that are funded under this grant. A work plan was prepared by ADH and submitted to ADEQ for \$46,000 in funding and is an attachment to the CWA, Section 106 work plan.

## **B. Ground water Resources Characterization**

1. Limited sampling of sites was performed in the following areas:
  - Frontal Ouachita monitoring areas
  - Ouachita ERW project area (5 times during reporting period collecting 55 water quality samples)
  - Sampling runs in the Lake Ft. Smith area, the Ouachita ERW sampling area, Dequeen, Norfork Lake, Little Rock, ERW and Hot Springs ERW.
2. Five new Public Water Supply Well (PWS) sites were identified; well officials were contacted and 2 new PWS wells in Pulaski County were sampled.
3. The Ground water manager engaged in the following training resources on groundwater assessment and protection subjects that includes the following:
  - Geospatial and statistical optimization techniques for characterization and remediation;
  - implementation of performance measures for remediation;
  - assessing the effectiveness of GAC injection in dissolved organic contaminant plumes;
  - redox zonation;
  - EnviroInsite software (data visualization) suite;
  - Bioeophysical techniques for Subsurface characterization (GWF webcast)

## **C. Ground water Quality Planning**

To assist other agencies on ground water resource development and management decisions, the ADEQ Ground water staff participated in the meeting of the Mississippi Alluvial Plain Regional Water Availability Study planning group and made an informal presentation at the meeting held in Greenville, MS.

## **D. Addressing Gaps in Ground Water Protection**

Ground water protection efforts included responding to complaints and inquires and also conducting research and mapping tasks. More specific assistance was provided with a request on a groundwater investigation work plan and coordinated with the ADEQ permit engineer regarding drilling and installation of monitoring network at a spray irrigation field. The Ground water manager also, participated in a site visit with the consulting geologist and site managers in order to observe drilling and testing procedures.



To assist other ADEQ offices and agencies with ground water protection, contamination assessment and remediation, ADEQ provided assistance with the following:

- completed review and commented on a groundwater monitoring plan being implemented at a former railroad loading rack area under investigation.
- commented and coordinated with permit engineer regarding a proposed permit modification at a facility in north central Arkansas and set initial scheduling for additional coordination.
- reviewed and commented on groundwater pump-and-treat permit per request from the ADEQ permit engineer.

#### **E. Technical Assistance and Outreach**

ADEQ staff participated in a number of technical assistance and outreach activities during the reporting period, some of which included:

- provided a written account of physical, chemical and geological conditions, after research and study, as possible causes of low pH in surface waters, specifically the pronounced solidification of clastic sediments in the Ouachita Mountains;
- reviewed and commented on one permit application for installation and operation of a groundwater treatment system in an area affected by a DNAPL plume;
- compiled and provided historic nitrate data in a number of tables and time-series graphs for the Buffalo River watershed from STORET for ADEQ staff;
- participated in efforts/meetings with ADEQ legal office to develop and finalize a plan for monitoring at a manufacturing facility with an unregulated contaminant issue in groundwater;
- prepared and provided information on local water tables, seasonal upwelling; ADEQ ambient groundwater data; spring data; effects of construction activities near domestic wells, and provided information on Public Water Supply well permitting procedures and requirements to various requestors, local, state, and federal entities.

#### **F. Arkansas Department of Health**

ADEQ continues to fund Wellhead Protection Program (WHPP) activities through ADH to focus on protecting public water supply wells in order to provide safe drinking water to the public. ADEQ included an element in the FY 17 CWA, Section 106 work plan for this activity. No Status was reported in the progress report.

### **VI. Follow up Items**

#### **A. Other Management Discussion Items**

ADEQ requested that the end-of-year review discussions start 30 minutes earlier than initially planned to accommodate another State meeting. Due to time constraints, there was not sufficient time to conclude discussions on the National-Regional Priorities and the Quality Assurance Project Plan. Although the Buffalo River Watershed Management Plan funded under the Multi-Purpose grant was not listed as an agenda item, discussions were also planned for this item.

**B. Availability of Funding for a Special Project**

ADEQ inquired about available funding for the Town of Marie, Arkansas for wastewater treatment. The town is a small, farm community in the Delta with an estimated 20 connections and a local school that accounts for approximately 80% of the flow. There is currently a pond that is unpermitted.

The Region's State Revolving Fund and State and Tribal Program Sections discussed possible funding options with the Arkansas Natural Resource Commission (ANRC). ANRC was aware of the situation with the Town of Marie and discussed some options. The Region recommends that ADEQ contact ANRC about possible funding options.

## Attachment 1

<b>EPA and ADEQ SURFACE WATER and GROUNDWATER PROGRAMS 2017 EOY MEETING ATTENDEES (VIA CONFERENCE CALL)</b>	
<b>ADEQ</b>	<b>EPA</b>
1. Sarah Clem	1. Curry Jones
2. Brian Leemons	2. Phillip Crocker
3. Jim Wise	3. Arlene Gaines
4. Tate Wentz	4. Russell Nelson
5. Roger Miller	5. Selena Medrano
6. Richard Healey	6. Monica Burrell
7. Jason Bolenbaugh	7. Rob Cook
8. Brenda Hughes	8. Jana Harvill
9.	9. Nancy Williams
10.	10. Tony Loston
	11. Forrest John
	12. Carol Johnson
	13. Linda Smith